

7. *Sternotherus Linneotus*, Sm. 8. *Varanus albogularis*, Daud. 9. *Bucephalus viridis*, Sm. 10. *Echinorhynchus obesus*, Sm.; a species of shark, taken, though rarely, at the Cape of Good Hope; and it is worthy of notice, that at a late Meeting of the British Association Mr. Strickland exhibited a drawing of an undescribed shark, taken on the Yorkshire coast, very closely allied in appearance to this, and coming into the same genus. No. II. contains: 1. *Erinaceus frontalis*, Sm., a good figure of a hedgehog, obtained in the districts around old Latakoo. 2. *Herpestes badius*, Sm., from the same locality. 3. *Sciurus Cepapi*, Sm. 4. *Prionops Talacoma*, Sm. 5. *Crateropus Jardinii*, Sm. 6. *Euplectes taha*. 7. *Philatærus lepidus*, Sm. 8. *Merops Bullockioides*, Sm. 9. *Pterocles variegatus*, Burchell. 10. *Echidna incrassata*.

Archiv für Naturgeschichte. In Verbindung mit mehreren Gelehrten, herausgegeben von Dr. Ar. Fr. Aug. Wiegmann, Professor an der Friederich Wilhelms-Universität zu Berlin. Vierter Jahrgang. Zweites Heft. Berlin, 1838.

[Continued from Vol. I. p. 321.]

The present part contains several very interesting papers, which we can but briefly notice in this place. The first article, 'Remarks on the Caspian Sea,' by Prof. E. Eichwald of Wilna, has for its principal object to establish that the Caspian is independent of the Black Sea, a conclusion founded upon its different Fauna. Most of the fish found in the Caspian are fresh-water fish; there are however several peculiar species from genera which hitherto have been observed in salt water only. Several new species of fish are described by the author, of which we can merely mention the names. The most numerous tribe inhabiting this sea, are the *Cyprinidæ*, some of which are quite peculiar to it. The following are those described as new: *Cobitis caspia*, *Clupea caspia*, *C. pontica*, *Atherina caspia*, *A. pontica*. A new genus allied to the family of the *Gobiæ*, the diagnosis of which is as follows:—

Benthophilus. Caput depressum, dilatatum, alepidoti trunci instar verrucis aculeigeris undique obsitum, operculum branchiale aculeato-verrucosum, apertura branchialis exigua lateralis, pinnæ abdominales sub pectoralibus infixæ medio connatæ, pinna dorsi duplex, priore 3-radiata.

Benthophilus macrocephalus, *Gobius sulcatus*, *G. affinis*, *G. caspius*, *Syngnathus nigrolineatus* and *S. caspius*. Among the Amphibia we find mentioned as most remarkable, *Clemmys caspia* and *Tropidonotus hydrus*. *T. scutatus*, Pall., the author considers to be merely a black variety of *T. natrix*; the same is the case with *T. persa*, Pall. The sea

is very poor in Crustacea, of which the author notices two new species, *Gammarus caspius* and *Stenosoma pusillum*. It is also exceedingly poor in Mollusca compared with the Black Sea, which is ascribed to the following cause;—that the sea is continually dissolving and taking up great quantities of salt, numerous beds of which occur in the neighbourhood, at Baku, Sallian, and towards the east coast, and in the hot summer the constant evaporation concentrates the salt water to such a degree as to render it unfit for the preservation of animal life.

2. On the dentition of the whale, by Prof. Wiegmann.

3. Remarks on the skulls of *Lutra* and *Spalax*, by H. Nathusius.

4. Cheloniorum Tabula Analytica, auctore Carolo L. Bonaparte.

5. A highly interesting paper on *Evadne Normanni*, a hitherto unknown Entomostrakon, by M. Lovèn. The *Evadne* forms a new genus, and the author has named the only species with which he is acquainted after the distinguished naturalist Alex. v. Nordmann, Professor at Odessa. The author has given a detailed anatomy of the various organs, comparing them with those of *Limnadia*, *Daphnia*, *Lynceus* and *Polyphemus*. It is a very lively animal and its motions are more regular than those of *Daphnia*. It never proceeds in a straight, but generally in a zigzag direction. The scanty knowledge of the exotic forms, and the dissimilarity of some of the known genera, for instance *Daphnia* and *Cyclops*, *Cypris* and *Apus*, which undoubtedly will have to be widely separated when we have become acquainted with more forms, renders the systematizing at present very difficult. *Evadne* may be considered as a link, and is most closely allied to *Polyphemus*, Müll.; it may be easily distinguished by its enormous thorax.

6. On *Limosa Meyeri*, Leisl., and *L. rubra*, Briss., by Drs. Hornschuch and Schilling. The specific difference of these two birds has long been doubtful; to settle this point the authors examined and compared a vast number of individuals, and have established the following specific distinctions:—

Limosa Meyeri, Leisl. Crown of the head flat; forehead extended, from the posterior angle of the nasal aperture to the anterior edge of the eye, in the male 10 lines, in the female 11 to 12 lines; lorum blackish brown, distinct; the tail white, banded with blackish brown.

Limosa rufa, Briss. Crown of the head prominent; forehead short, from the posterior angle of the nasal aperture to the anterior edge of the eyes 8 lines, in the female ? lorum blackish brown only intimated; tail white, and banded with blackish brown.

Summer clothing of the old male.—*L. Meyeri*, Leisl. The entire

under surface of the body *dusky brown*. *L. rufa*, Briss. The entire under surface of the body *dusky red*.

Summer clothing of the old female.—*L. Meyeri*, Leisl. Neck and gape tinted with bright dusky brown, with numerous blackish brown cross bands and longitudinal stripes; breast white, with large dusky brown spots; the sides blotched with blackish brown cross bands and spots; belly white, towards the front spotted with dusky brown.

7. Dr. C. Th. Siebold on the female generative organs of the *Tachinæ*. From observations made on the following species which occur in the neighbourhood of Dantzic, 1. *T. fera*; 2. *T. tessellata*; 3. *T. grossa*; 4. *T. hæmorrhoidalis*; 5. *T. vulpina*; 6. *T. nov. spec.*; 8. *T. flavescens*; 9. *T. flavescens?* 10. *T. larvarum*; 11. *T. larvarum?* 12. *T. tristis*;—it appears that the female generative organs of the *Tachinæ* are not organized after a common type, but present very remarkable differences of structure; those from No. 1 to 7 bringing forth living maggots. The vagina is the part subjected to the greatest change in the various species, its peculiar forms at times curiously characterizing the female generative organs of certain *Tachinæ*. In this respect they may be properly divided into two groups: in the first is enumerated all those having a long vagina, while the second group contains those possessing a sac-like vagina. I. *Group*. The eggs collect in immense quantities in the long vagina of this group, and here are developed into maggots, which leave their egg-shell before they are deposited by the female. The development of the eggs takes place only in the vagina, therefore after they have slid by the mouth of the seminal capsules, which are situated at the posterior end of the vagina. Those eggs, quite perfectly formed, which were met with above the mouth of the seminal capsules in the ovaries or oviducts, never exhibited any incipient development of the maggot. The number of eggs which the vagina contains is immense. "As I had taken the pains," says Dr. Siebold, "to count the brood in *T. tessellata*, which I found in the vagina, and brought out by an exact enumeration 2386 maggots and eggs, I could not bring myself to enumerate those which were housed in the vagina of *T. fera*, as I was convinced on a general view that I should have to count a brood three times greater than in *T. tessellata*. When therefore Reaumur, in his 'Mémoires pour servir à l'Histoire des Insectes,' t. iv. p. 417, calculated the almost incredible number of 20,000 larvæ in the vagina of a female *Tachina*, this in the end might not be much overrated." II. *Group*. The female *Tachinæ* of this group produce fewer eggs than those belonging to the first. "I discovered in their short wide sheath generally but one large egg, in which the development of the

maggot had never commenced, so that, at least up to the present time, I have observed none of the species of this group to be viviparous. It is curious how the seminal fluid and the Spermatozoa contained in it can arrive in the seminal capsules, situated so far from the vulva; in the first group of the *Tachinae*, ciliary motion cannot advance the semina from the anterior commencement of the sheath to its very end, since the sheath and the other female generative organs do not possess any, and indeed I have hitherto not discovered any ciliary organs in true insects."

8. On the genus *Scarabus*, Montf., by F. H. Troschel.

9. On some native (German) land snails, by Dr. Aug. Muller. The author notices the occurrence of *Helix Scarburgensis* near Kiel, on the coast of the Baltic, and points out the impropriety of giving names of places to new species. The other species mentioned are *Vertigo plicata* and *V. pusilla*.

On vegetable Spermatozoa, by J. Meyen. The author directs the attention to the existence of the long-tailed Spermatozoa in the anthers of *Marchantia polymorpha*.

The first part of a paper on the Motions of Plants (a prize memoir), by M. Dassen; this we shall notice with the third part. And a translation of Mr. Owen's paper on *Gnathostoma* finishes the present number.

Works in the Press.

Natural History and Illustrations of the Scottish Salmonidæ. By Sir William Jardine, Bart.

It is proposed, under the above title, to publish a series of plates illustrating the different species of the Scottish fishes, which compose this family, accompanied with a volume of descriptive letter-press.

The plates will amount to from *twenty-five* to *thirty* in number, elephant folio, so as to admit of the greater part being represented of the size of life. On these will be figured all the species of migratory salmon and of trout, with its varieties, which inhabit or frequent the rivers and lochs of Scotland, together with the char, coregoni, &c. The very dissimilar appearance which this group of fishes assumes at different ages and at different seasons, has rendered their history extremely difficult to investigate, and has in many instances caused a nominal multiplication of species by several being described in states apparently very different, while the variation was occasioned by the same influence which acts at similar periods on the plumage of birds, and to which may be attributed the great confusion so long